Project Baseline Summary Report

Data Source: **EM CDB**
Report Number: **GEN-01b**
Operations/Field Office: **Richland**
Print Date: **3/9/2000**
Site Summary Level: **Hanford Site**
HQ ID: **0423**
Project **RL-ER09 / N Reactor Deactivation**

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

Purpose: The Contractor shall provide the management and integration of the activities required to deactivate the N Reactor and its ancillary facilities.

The contractor shall be responsible for the following:

Managing and integrating the deactivation of N Reactor and its ancillary facilities.
Meeting endpoint criteria required to transition N Reactor and its ancillary facilities to S&M.

Scope: The N Reactor Deactivation Project involves the deactivation of 88 facilities; cleanout and stabilization of the N Basin; cleanout and stabilization of the Emergency Dump Basin; removal of fuel spacers from silos; operation of the N Reactor waste pad; and performance of surveillance and maintenance.

The objective of the N Reactor Deactivation Project is to deactivate N Reactor by removing all unattached materials and equipment and to place the facilities in an environmentally safe condition such that minimal surveillance and maintenance will be required.

The N Reactor Deactivation is a stand alone project within the overall ER Project.

Technical Approach: The N Reactor Deactivation Project will dispose of the majority of the waste produced during deactivation in the ER Disposal Facility. The water from the N basin will be sent and treated at the 200 Area ETF. Wastes created by this treatment will be disposed of in the ER Disposal Facility. In the event that spent fuel is discovered in the N Basin, the material will be transferred to the Spent Fuels Project for disposition. The sludge will be removed from the N Basin and the basin will be dewatered before transition to D&D. The complex will be cleaned up to provide a safer environment for S&M.

Project Status in FY 2006:

The N Area deactivation will be complete in FY98 and transfer of facility to the D&D program in FY98

Post-2006 Project Scope:

Deactivation of N reactor complete in FY98 and transfer of facility to the D&D program in FY98.

Project End State

The N Reactor Deactivation Project will support the goals and endstates for the areas of the Hanford Site as referenced in the Hanford Site Strategic Plan as the Reactors on the River.
Reactors on the River Goal: Remove and/or stabilize spent fuel, surplus facilities, and waste sites to protect groundwater and the Columbia River, and to ensure protection of people, the environment, and natural/cultural resources. Pending Congressional action on the Wild and Scenic River

Project Description Narratives

designation, use will continue to be restricted; sensitive ecological, cultural, and native American resources will be protected.
Facilities Endstate
? Reactors will be placed in interim safe storage for up to 75 years pending future removal. Reactor blocks transported to Central Plateau for disposal.
? Non-essential, surplus buildings and facilities that do not have identified post-cleanup uses will be removed.

Cost Baseline Comments:

The cost estimates for the ER Project are developed through the use of MCACES and RACER models and activity based estimates for project activities like program management and support.
The contingency for outyears was developed through the use of a "Monte Carlo" analysis and selection of an acceptable level risk based on discussions between the contractor and DOE project managers.

Safety & Health Hazards:

The Richland Environmental Restoration (ER) Project`s primary responsibilities are the cleanup of past practice waste sites, addressing the contaminated groundwater, and decontamination and decommissioning of surplus facilities. In 1987 the Hanford Site Federal Facility Agreement and Consent Order (TPA) was signed by EPA, Ecology, and DOE. This agreement is the primary driver for essentially all of ERC`s remediation and D&D activities.

This PBS addresses ES&H and mission components associated with the N Deactivation Project. The focus of the N Deactivation Project in the Ten-Year Plan (TYP) is to complete the deactivation of the 105-N Reactor Complex which includes the clean-out of the fuel storage basin (a major effort) in FY98. Deactivation will be followed by the transfer the 105-N Reactor Complex, fuel storage basin, and associated ancillary facilities and structures to the Decontamination and Decommissioning (D&D) Program in FY98. The D&D Program will be responsible for routine surveillance and maintenance (S&M) of the 105-N Reactor Complex, fuel storage basin and associated ancillary facilities until final decommissioning can be achieved along with the eight other surplus production reactors. These activities address a primary regulator priority, as well as stakeholder and Tribal Nation values relative to restoration and cleanup of the Hanford Site along the Columbia River.

The N Reactor Facility Complex (including the fuel storage basin) will be deactivated to meet established end-point criteria before entering the D&D S&M program.

Safety & Health Work Performance:

N/A

PBS Comments:

The N Area deactivation will be completed in FY98.

Baseline Validation Narrative:

Baseline validation by Team Associates for DOE.

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Validation Report - Richland Environmental Restoration Project FY 1996 Baseline Validation, May 1996.
The DOE requested an independent contractor, Team Associates, to perform a validation of the Richland Environmental Restoration Project. This validation was a follow up of the validation performed for the FY 1995 Baseline. Estimate models with near-term implementation schedules and total project summary costs were reviewed. The validation was broken down into three distinct efforts consistent with the validation objectives.
1) An in-depth review of MCACES models provided by DOE was performed
2) A review of near-term schedules for 100 BC and 300 FF areas to evaluate reasonableness and feasibility of achievement.
3) A top down assessment of the cost estimating process for consistency of approach to identify opportunities for improvement.

General PBS Information

Project Validated? Yes **Date Validated:** 5/31/1996

Has Headquarters reviewed and approved project? Yes

Date Project was Added: 12/1/1997

Baseline Submission Date:

FEDPLAN Project? Yes

Drivers:	**CERCLA**	**RCRA**	**DNFSB**	**AEA**	**UMTRCA**	**State**	**DOE Orders**	**Other**
		Y						

Project Identification Information

DOE Project Manager: R.A. Holten

DOE Project Manager Phone Number: 509-376-7277

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Is this a High Visibility Project (Y/N):

Planning Section

Baseline Costs (in thousands of dollars)

1997-2006 Total	**2007-2070 Total**	**1997-2070 Total**	**1997**	**Actual 1997**	**1998**	**Actual 1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**

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Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006
PBS Baseline (current year dollars)	27,934	0	27,934	21,137	22,320	6,797	18,176		0	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	27,934	0	27,934	21,137	22,320	6,797	18,176		0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	27,934	0	27,934	21,137	22,320	6,797	18,176		0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	27,934	0	27,934	21,137	22,320	6,797	18,176		0	0	0	0	0	0	0

	2007	2008	2009	2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
PBS Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0				
PBS Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0				
PBS EM Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0				
PBS EM Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0				

Baseline Escalation Rates

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
0.00%	0.00%		2.70%	2.70%	2.80%	2.80%	2.90%	2.70%	2.70%	2.70%	2.70%	2.70%

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2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%				

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project: 4/1/1998

Current Projected End Date of Project:

Explanation of Project Completion Date Difference (if applicable):

Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	28,220	**Actual 1997 Cost:**	22,320	**Actual 1998 Cost:**	18,176
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	-12,276	**Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):**			-331
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	-12,607				

Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):		
Cost Reductions Due to Efficiencies (-):		
Cost Associated with New Scope (+):		
Cost Growth Associated with Scope Previously Reported (+):		
Cost Reductions Due to Science & Technology Efficiencies (-):		
Subtotal:	-12,607	
Additional Amount to Reconcile (+):	12,607	
Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	**0**	

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